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› SWIFT Microscope SW150,Compound Student Microscope,40X-1000X,Monocular Head,Coarse & Fine Focusing,Dual Illumination,Cordless-Capable with Eyepiece Camera and Software Windows and Mac Compatible

SWIFT SW150-EP0

SWIFT SW150 Compound Student Microscope User Manual

Model: SW150-EP0

INTRODUCTION

The SWIFT SW150 Compound Student Microscope is designed for educational use, suitable for students, beginners, hobbyists, and enthusiasts exploring the microscopic world. This manual provides comprehensive instructions for setting up, operating, and maintaining your microscope to ensure optimal performance and longevity.

Key features include a monocular head, coarse and fine focusing, dual LED illumination, and cordless capability for field experiments. It also comes with an eyepiece camera and software compatible with Windows and Mac for digital observation and image capture.

PRODUCT COMPONENTS

Familiarize yourself with the main components of your SWIFT SW150 microscope.



Figure 1: Key components of the SWIFT SW150 microscope, including the eyepiece, rotatable head, objective lenses, and upper light source.



Figure 2: Additional components such as the plain stage, diaphragm, focusing knobs, and lower light source.

- **Monocular Head:** Rotatable for shared viewing.
- **Eyepieces:** Includes WF10X and WF25X wide-field eyepieces.
- **Objective Lenses:** 4X, 10X, and 40X glass objectives.
- **Stage:** Plain stage for holding specimens.
- **Focus Knobs:** Separate coarse and fine adjustment knobs for precise focusing.
- **Illumination:** Dual LED lights for both transmitted (lower) and reflected (upper) illumination.
- **Diaphragm:** Controls the amount of light reaching the specimen.
- **Eyepiece Camera:** For digital viewing and image/video capture.

SETUP

1. **Unpacking:** Carefully remove all components from the packaging.
2. **Power Connection:**

- For AC power, connect the power adapter to the microscope's power input and plug it into a standard 110V outlet.
- For cordless operation, ensure 3 AA batteries (included) are correctly installed in the battery compartment located at the base.

3. **Eyepiece Installation:** Insert the desired eyepiece (WF10X or WF25X) into the monocular head.

4. **Eyepiece Camera Setup (Optional):**

- Remove the eyepiece from the microscope.
- Insert the eyepiece camera into the eyepiece tube.
- Connect the camera to your computer (Windows or Mac) via the provided USB cable.
- Install the included software for image capture and analysis. Refer to the software's specific instructions for detailed installation steps.



Figure 3: The SWIFT SW150 microscope connected to a laptop, demonstrating the digital viewing capability.

OPERATING INSTRUCTIONS

1. **Power On:** Flip the power switch located at the base of the microscope.
2. **Place Specimen:** Place your prepared slide or specimen on the plain stage, securing it with the stage clips if available.
3. **Select Objective Lens:** Rotate the revolving nosepiece to select the lowest power objective lens (e.g., 4X) first. This provides the widest field of view for initial observation.
4. **Adjust Illumination:**

- Use the lower LED light for transparent specimens (e.g., prepared slides).
- Use the upper LED light for opaque or solid specimens (e.g., leaves, insects).
- Adjust the brightness using the dimmer control.
- Adjust the diaphragm to control the contrast and resolution of the image.

5. **Focusing:**

- While looking through the eyepiece, use the **coarse adjustment knob** to bring the specimen into approximate focus.
- Once roughly focused, use the **fine adjustment knob** for precise focusing and to achieve a clear, sharp image.

6. **Changing Magnification:**

- To increase magnification, rotate the nosepiece to the next higher objective lens (e.g., from 4X to 10X, then to 40X).
- After changing objectives, only use the **fine adjustment knob** to refocus, as these microscopes are typically parfocal (staying nearly in focus when changing objectives).
- Total magnification is calculated by multiplying the eyepiece magnification by the objective lens magnification (e.g., 10X eyepiece * 40X objective = 400X total magnification).



Figure 4: Examples of specimen views at various magnifications, demonstrating the clarity and detail achievable with the SW150.

7. Using the Eyepiece Camera (if installed):

- Open the installed software on your computer.
- The software should display the live view from the microscope.
- Use the software's functions to capture images, record videos, and perform measurements or other analyses.

MAINTENANCE

- **Cleaning Lenses:** Use only specialized lens cleaning paper and lens cleaning solution. Gently wipe the objective lenses and eyepieces. Avoid touching optical surfaces with bare hands.
- **Cleaning Body:** Wipe the microscope body with a soft, dry cloth. For stubborn dirt, a slightly damp cloth can be used, but ensure no moisture enters the electrical components.
- **Storage:** When not in use, cover the microscope with a dust cover to protect it from dust and debris. Store in a cool, dry place away from direct sunlight and extreme temperatures.
- **Battery Care:** If using batteries, remove them if the microscope will not be used for an extended period to prevent

leakage.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No illumination	Power switch off, power adapter disconnected, batteries dead/incorrectly installed, bulb failure.	Ensure power switch is ON. Check AC adapter connection or battery installation. Replace batteries if needed. Contact support if bulb is suspected to be faulty.
Image is blurry or out of focus	Incorrect focusing, objective lens not clicked into place, dirty lens, specimen not flat on stage.	Use coarse and fine adjustment knobs. Rotate objective lens until it clicks into position. Clean lenses. Ensure specimen slide is flat.
Dark or uneven field of view	Diaphragm setting too small, illumination too low, objective lens partially obstructed.	Adjust diaphragm. Increase illumination brightness. Check for obstructions on objective lenses.
Eyepiece camera not detected by computer	USB cable disconnected, software not installed/running, driver issues.	Ensure USB cable is securely connected. Verify software is installed and open. Restart computer. Reinstall camera drivers if necessary.

SPECIFICATIONS

- Model Name:** SW150-EP0
- Brand:** SWIFT
- Magnification:** 40X, 100X, 250X, 400X, 1000X (with included eyepieces and objectives)
- Eyepieces:** WF10X, WF25X
- Objective Lenses:** 4X, 10X, 40X
- Head Type:** Monocular, 360° Rotatable
- Focusing:** Coarse and Fine Adjustment
- Illumination:** Dual LED (Upper and Lower)
- Power Source:** AC Adapter (110V) or 3 AA Batteries (Cordless-Capable)
- Material:** Metal
- Item Weight:** Approximately 4.6 pounds (2.09 Kilograms)
- Compatible Devices (Eyepiece Camera):** Laptop (Windows Vista, 7, 8, 10; Mac OS X)

WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries regarding your SWIFT SW150 microscope, please contact the manufacturer or the authorized seller. Keep your purchase receipt as proof of purchase for any warranty claims. The seller for this product is "Swift US Official Store". Please refer to their official contact channels for assistance.

ADDITIONAL RESOURCES

No official product videos from the seller were found in the provided data. For further visual guidance or demonstrations, please refer to the manufacturer's official website or support channels.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question